

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application.

Claims 1 and 7-10 are now present in this application. Claim 1 is independent.

Amendments have been made to the claims 1 and 7-9 and claims 2-5 have been canceled. Reconsideration of this application, as amended, is respectfully requested.

Reasons for Entry of Amendments

At the outset, it is respectfully requested that this Amendment be entered into the Official File in view of the fact that the amendments to the claims automatically place the application in condition for allowance.

In the alternative, if the Examiner does not agree that this application is in condition for allowance, it is respectfully requested that this Amendment be entered for the purpose of appeal. This Amendment reduces the issues on appeal by reducing the number of pending claims under consideration, and by eliminating at least one ground of rejection. This Amendment was not presented at an earlier date in view of the fact that Applicants did not fully appreciate the Examiner's position until the Final Office Action was reviewed.

Rejections under 35 U.S.C. §103

Claims 1, 2, 5, 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Sproul and in further view of Bloch. Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Sproul and in further view of Bloch and still in further view of Dickerson. Claims 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park, Sproul, Bloch and in view of Taylor-McCune. These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here.

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the instant application, Applicants respectfully submit that independent

claim 1 has been amended to recite a combination of elements in a suction valve assembly of a reciprocating compressor including a valve supporting body formed as a disc shape and inserted-fixed to a valve mounting portion formed at a piston and provided with at least one suction hole through which a fluid introduced into a suction passage of the piston is supplied to a compression chamber of a cylinder, and a suction valve formed as a disc shape and mounted at the valve supporting body to be rotatable within a certain range, for opening and closing the suction hole formed at the valve supporting body, wherein the suction valve is provided with a slot formed at a center thereof for inserting a hinge pin so that the valve supporting body can be hinge-coupled, and the slot has a certain length that the hinge pin is slidingly-moved so that the suction valve can be linearly-moved within a certain range, wherein the valve supporting body has a pin hole, formed at the center of the valve supporting body in a diameter direction, for inserting the hinge pin, and at least one suction hole formed at one side on the basis of the pin hole and a stopper formed at another side on the basis of the pin hole, and wherein the stopper is formed to have a certain inclination surface of which thickness becomes smaller towards an edge of the valve supporting body from a center of the valve supporting body. Applicants respectfully submit that this combination of elements as set forth in independent claim 1 is not disclosed or made obvious by the prior art of record, including Park, Sproul, Bloch, Dickerson and Taylor-McCune.

At the outset, Applicants respectfully submit that the Examiner has utilized ONLY ONE reference from Applicants' field of endeavor, and has attempted to combine that reference with FOUR secondary references which are each from unrelated fields of endeavor.

The primary reference is directed to a piston and suction valve arrangement for a reciprocating compressor, which IS in Applicants' field of endeavor.

However, the secondary reference to Sproul et al. is directed to a flapper valve for an in-ground well installation, which IS NOT related to Applicants' field of endeavor of compressor design.

In addition, the secondary reference to Bloch is directed to a valve for a heart, which IS NOT related to Applicants' field of endeavor of compressor design.

Further, the secondary reverence to Dickerson is directed to a sewer valve for preventing backing up of sewage, which IS NOT related to Applicants' field of endeavor of compressor design.

Finally, the secondary reverence to Taylor-McCune et al is directed to a valve for dispensing condiments such as salad dressing or tartar sauce, which IS NOT related to Applicants' field of endeavor of compressor design.

Clearly, the Examiner has found various pieces in the prior art, from very different fields of endeavor, and has combined them together, which by itself is not permissible. However, in addition to that, the Examiner is clearly using Applicants' teachings as a roadmap from which to select the various pieces of prior art, and combine them together, which also is not permissible. The technical field of the secondary references is not in any way related to a reciprocating compressor, and there is no relationship or motivation to combine the secondary references with the primary reference, other than to deprecate Applicants' invention based on the teachings in the specification, which is not permissible.

The fact that the Examiner could only find the various aspects of Applicants' invention in such diverse art areas is a testament to the unobvious nature of Applicants' invention.

For at least these reasons, the rejections of record should be reconsidered and withdrawn.

In addition, Applicants respectfully submit that in order to establish *prima facie* obviousness of the claimed invention, all the limitations must be taught or suggested by the prior art. See, e.g., M.P.E.P. Chapter 2143.03.

As recited in currently amended claim 1 of the present application, the suction valve assembly of the present invention comprises a valve supporting body formed as a disc shape and inserted-fixed to a valve mounting portion formed at a piston, and a suction valve formed as a disc shape and mounted at the valve supporting body to be rotatable within a certain range. The suction valve of the present invention has a slot formed at a center thereof for inserting a hinge pin so that the valve supporting body can be hinge-coupled, and the slot has a certain length that the hinge pin is sliding-moved so that the suction valve can be linearly-moved within a certain range. Also, the valve supporting body of the present invention has a pin hole formed at the center of the valve supporting body in a diameter direction and at least one suction hole formed

at one side on the basis of the pin hole and a stopper formed at another side on the basis of the pin hole. That is, the suction hole is formed at the opposite side of the stopper on the basis of the pin hole. Finally, the stopper is formed to have a certain inclination surface of which thickness becomes smaller towards an edge of the valve supporting body from a center of the valve supporting body.

In contrast, none of the references teaches or suggests a suction valve assembly having a valve supporting body and suction valve configured as claimed.

The valve seat 70 of Sproul, allegedly corresponding to the valve supporting body of the present invention, is not formed as a disc shape. Instead, the valve seat 70 of Sproul has an annular ring shape. In addition, Sproul does not disclose a suction valve having a slot, which has a certain length and formed at the center of the valve. On the contrary, the slot 112 of Sproul is formed at the edge of a valve closure member 50.

The valve 18 of Bloch does not have a slot, and therefore the valve 18 cannot linearly move. The valve supporting body 15 of Bloch is not formed as a disc shape. The valve supporting body 15 of Bloch has an annular ring shape, as shown in figure 1.

The valve supporting body 30 of Dickerson is not disc-shaped. The shape of the valve supporting body 30 of Dickerson is similar to a pipe or a hollow tube.

Applicants respectfully submit that the combination of elements as set forth in independent claim 1 is not disclosed or made obvious by the prior art of record, including Park, Sproul, Bloch, Dickerson and Taylor-McCune, for the reasons explained above. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

With regard to dependent claims 7-10, Applicants submit that claims 7-10 depend, either directly or indirectly, from independent claim 1 which is allowable for the reasons set forth above, and therefore claims 7-10 are allowable based on their dependence from claim 1. Reconsideration and allowance thereof are respectfully requested.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently

outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

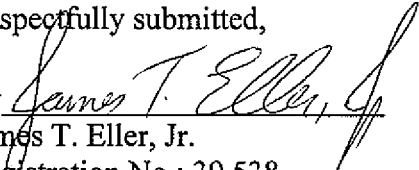
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone James T. Eller, Jr., Registration No. 39,538, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 
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